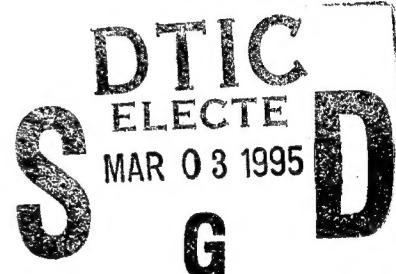


NAVAL BIODYNAMICS LABORATORY
NBDL-93R001

**BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS
OF THE NAVAL BIODYNAMICS LABORATORY: 1980-1992**

NAVAL BIODYNAMICS LABORATORY
BOX 29407
NEW ORLEANS, LA 70189-0407



DTIC QUALITY IMPACTED 4

Approved for public release: distribution is unlimited.

Prepared for

Naval Medical Research and Development Command
Bethesda, MD 20889-5044

19950227 075

FOREWORD

The mission of the Naval Biodynamics Laboratory (NAVBIODYNLAB) is to conduct biomedical research on the effects of mechanical forces encountered by crew members in Navy aircraft and ships, establish human tolerance limits to these forces, and develop approaches to minimize their adverse effects.

This report lists all research reports, special reports, monographs, technical memoranda, joint reports, research information bulletins, journal articles, and conference proceedings published by the Naval Biodynamics Laboratory during the calendar years 1980 through 1992.

To obtain copies of literature having AD numbers, registered DTIC users may order from:

Defense Technical Information Center
Cameron Station
Alexandria, VA 22304
(AUTOVON 284-7633, commercial 202-274-7633)

All others should order from:

National Technical Information Service
Springfield, VA 22161
(703-487-4650, FAX 703-321-8547)

Requests for literature not having AD numbers may be addressed to:

Librarian
Naval Biodynamics Laboratory
P. O. Box 29407
New Orleans, LA 70189-0407.

Accesion For	
NTIS CRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	



R. W. RENDIN
Commander, Medical Service Corps
United States Navy
Commanding Officer

NAVBIODYNLAB PUBLICATIONS 1980

Becker, E. B., "Cutting Pipe Intersections." *Machine Design*, pp. 133-134, April 1980.

Becker, E. B., *Head and Neck Kinematics for Frontal Oblique and Lateral Crash Impact*, Report No. NBDL-80R009 (NTIS No. AD A131956), Naval Biodynamics Laboratory, New Orleans, LA, August 1980.

Bittner, A. C., Jr. and Chatfield, D. C., "A Signal Detection Theory Function for Relating Sensitivity to Standard and Comparison Magnitudes." *Proceedings of the Human-Machine Systems Symposium IEEE International Conference on Cybernetics and Society*, The Institute of Electrical and Electronics Engineers, Inc., New York, NY, pp. 978-984, October 1980.

Bittner, A. C., Jr., Kennedy, R. S., Harbeson, M. M., and Lundy, N. C., "Apparatus Testing for Aviation Performance Assessment and Selection: A Technology Ready to Come of Age." *28th International Congress of Aviation, Space, and Environmental Medicine*, Montreal, Canada, September 1980.

Bittner, A. C., Jr., Kennedy, R. S., and McCauley, M. E., "Time Estimation: Repeated Measures Testing and Drug Effects." *Proceedings of the 7th Psychology Symposium in the Department of Defense*, United States Air Force Academy, Colorado Springs, CO, pp. 445-450, April 1980.

Carter, R. C., "Physiological and Performance Measurements: A Time-Series Model." *Preprints of the Scientific Program Aerospace Medical Association 1980 Annual Scientific Meeting*, Aerospace Medical Association, Washington, DC, pp. 161-162, May 1980.

Carter, R. C., *Visual Search with Color*, Monograph No. NBDL-M005 (NTIS No. AD A100351), Naval Biodynamics Laboratory, New Orleans, LA, October 1980.

Carter, R. C., Kennedy, R. S., and Bittner, A. C., Jr., "Selection of Performance Evaluation Tests for Environmental Research." *Proceedings of the 24th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Los Angeles, CA, October 1980.

Carter, R. C., Kennedy, R. S., Bittner, A. C., Jr., and Krause, M., "Item Recognition as a Performance Evaluation Test for Environmental Research." *Proceedings of the 24th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Los Angeles, CA, October 1980.

Damos, D. L. and Smist, T. E., *Individual Differences in Dual-Task Performance*, Monograph No. NBDL-M006 (NTIS No. AD A099977), Naval Biodynamics Laboratory, New Orleans, LA, November 1980.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

Dixon, D. J., Copeland, M. G., and Halcomb, C. G., *Psychomotor Battery Approaches to Performance Prediction and Evaluation in Hyperbaric, Thermal and Vibratory Environments: Annotated Bibliographies and Integrative Review*, Monograph No. NBDL-M002 (NTIS No. AD A099981), Naval Biodynamics Laboratory, New Orleans, LA, October 1980.

Frisch, G. D. and D'Aulerio, L. A., "Bioman-An Improved Occupational-Crew Station Compliance Modeling System." *Aviation, Space, and Environmental Medicine*, Vol. 51, pp. 160-167, 1980.

Frisch, G. D., D'Aulerio, L. A., and Schultz, M., "Crew Station Assessment Using the Bioman Modeling System." *AGARD Conference Proceedings No. 267*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 24:1-16, 1980.

Frisch, G. D., D'Aulerio, L. A., and Schultz, M., *Simulation of Emergency Egress from Aircraft Crew Stations*, Research Report No. NBDL-80R001 (NADC No. 80059-60), Naval Biodynamics Laboratory, New Orleans, LA, March 1980.

Guignard, J. C., Majewski, P. L., and Muzzy, W. H., III, "Determining Thresholds of Human Response to Vibration Using Acceleration Sweeps at Constant Velocity." In D. J. Osborne and J. A. Levis (Eds.), *Human Factors in Transport Research*, Academic Press Inc., New York, NY, Vol. 2, pp. 149-157, November 1980.

Guignard, J. C., Bittner, A. C., Jr., Einbender, S. W., and Kennedy, R. S., "Performance Evaluation Tests for Environmental Research (PETER) Landolt C. Reading Test." *Proceedings of the 24th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Los Angeles, CA, October 1980.

Guignard, J. C., Ewing, C. L., Willems, G. C., Anderson, W. R., Muzzy, W. H., III, Thomas, D. J., and Majewski, P. L., "A Method for Studying Human Biodynamic Responses to Whole-Body Z-Axis Vibration." *AGARD Conference Proceedings No. 267*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 9:1-7, 1980.

Harbeson, M. M., Krause, M., and Kennedy, R. S., "Comparison of Memory Tests for Environmental Research." *Proceedings of the 24th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Los Angeles, CA, October 1980.

Jones, M. B., "Convergence-Divergence with Extended Practice: Three Applications." *Proceedings of the 24th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Los Angeles, CA, October 1980.

Jones, M. B., *Stabilization and Task Definition in A Performance Test Battery*, Monograph No. NBDL-M001 (NTIS No. AD A099987), Naval Biodynamics Laboratory, New Orleans, LA, October 1980.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1992

Jones, M. B., Kennedy, R. S., and Bittner, A. C., Jr., "Video Games and Convergence or Divergence with Practice." *Proceedings of the 7th Psychology Symposium in the Department of Defense*, United States Air Force Academy, Colorado Springs, CO, pp. 465-469, April 1980.

Kennedy, R. S. and Bittner, A. C., Jr., *Development of Performance Evaluation Tests for Environmental Research (PETER): Complex Counting Test*, Research Report NBDL-80R003, Naval Biodynamics Laboratory, New Orleans, LA, October 1980.

Kennedy, R. S., Bittner, A. C., Jr., and Harbeson, M. M., "An Engineering Approach to the Standardization of Performance Evaluation Tests for Environmental Research (PETER)." *Proceedings of the 11th Annual Conference of the Environmental Design and Research Association (ERDA)*, Charleston, SC, March 1980.

Kennedy, R. S., Bittner, A. C., Jr., and Jones, M. B., "The Utility of Commercially Available Television-Computer Games for Assessing Performance and Other Applications." *Preprints of the Scientific Program Aerospace Medical Association 1980 Annual Scientific Meeting*, Aerospace Medical Association, Washington, DC, pp. 163-164, May 1980.

Kennedy, R. S., Carter, R. C., and Bittner, A. C., Jr., "A Catalogue of Performance Evaluation Tests for Environmental Research." *Proceedings of the 24th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Los Angeles, CA, October 1980.

Kennedy, R. S., Jones, M. B., and Harbeson, M. M., "Assessing Productivity and Well-Being in Navy Workplaces." *Proceedings of the 13th Annual Meeting of the Canada Human Factors Association*, Human Factors Association of Canada, Ontario, Canada, pp. 108-113, September 1980.

Krause, M. and Kennedy, R. S., "Performance Evaluation Tests for Environmental Research (PETER): Interference Susceptibility Test (IST)." *Proceedings of the 7th Psychology Symposium in the Department of Defense*, United States Air Force Academy, Colorado Springs, CO, pp. 459-464, April 1980.

Lustick, L. S., Williamson, H. G., Seemann, M. R., and Bartholomew, J. M., "Problems of Measurement in Human Analog Research." *8th International Workshop on Human Subjects for Biomechanical Research*, U. S. Department of Transportation, National Highway Traffic Safety Administration, Washington, DC, 1980.

McCafferty, D. B., Bittner, A. C., Jr., and Carter, R. C., "Performance Evaluation Tests for Environmental Research (PETER): Auditory Digit Span Task." *Proceedings of the 24th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Los Angeles, CA, October 1980.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

McCauley, M. E., Kennedy, R. S., and Bittner, A. C., Jr., "Development of a Performance Evaluation Tests for Environmental Research (PETER): Time Estimation." *Perceptual and Motor Skills*, Vol. 51, pp. 655-665, 1980. Also published as Research Report No. NBDL-80R007 (NTIS No. AD A113948), Naval Biodynamics Laboratory, New Orleans, LA, December 1980.

Pepper, R. L., Kennedy, R. S., Bittner A. C., Jr., and Wiker, S. F., "Performance Evaluation Tests for Environmental Research (PETER): Code Substitution Test." *Proceedings of the 7th Psychology Symposium in the Department of Defense*, United States Air Force Academy, Colorado Springs, CO, pp. 451-457, April 1980.

Sances, T. A., Jr., Weber, R., Myklebust, J. B., Cusick, J. F., Larson, S. J., Walsh, P. R., Christoffel, T., Houterman, C., Ewing, C. L., Thomas, D. J., and Saltzberg, B., "The Evoked Potential: An Experimental Method for Biomechanical Analysis of Brain and Spinal Injury." *Proceedings of the 24th STAPP Car Crash Conference*, Society of Automotive Engineers, Warrendale, PA, pp. 63-100, 1980.

Seales, D. M., Kennedy, R. S., and Bittner, A. C., Jr., "Development of Performance Evaluation Test for Environmental Research (PETER): Arithmetic Computation." *Perceptual and Motor Skills*, Vol. 51, pp. 1023-1031, 1980.

Shannon, R. H., "Manual Materials Handling Injuries of Naval Civilian Workers." *Proceedings of Human Factors and Industrial Design in Consumer Products Symposium*, Medford, MA, May 1980.

Shannon, R. H., "The Utility of Task Analytic Techniques to Research in Unusual Environments." *Preprints of Scientific Program Aerospace Medical Association 1980 Annual Scientific Meeting*, Aerospace Medical Association, Washington, DC, pp. 165-166, May 1980.

Shannon, R. H., "Performance Evaluation Tests for Environmental Research (PETER): Using Tasks Analysis." *28th International Congress of Aviation, Space, and Environmental Medicine*, Montreal, Canada, September 1980.

Shannon, R. H., "A Factor Analytic Approach to Determining Stability of Human Performance." *Proceedings of the 13th Annual Meeting of the Canada Human Factors Association*, Human Factors Association of Canada, Ontario, Canada, pp. 114-116, September 1980.

Shannon, R. H., "Task Analytic Approach to Human Performance Battery Development." *Proceedings of the 24th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Los Angeles, CA, October 1980.

Shannon, R. H., "The Validity of Task Analytic Information to Human Performance Research in Unusual Environments." *Proceedings of the 24th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Los Angeles, CA, October 1980.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1992

Shannon, R. H., *Determination of Efficient Methods of Lift by Comparing Trained and Untrained Male and Female Lifters*, Monograph No. NBDL-M004 (NTIS No. AD A100349), Naval Biodynamics Laboratory, New Orleans, LA, October 1980.

Thomas, D. J., Ewing, C. L., Majewski, P. L., and Gilbert, N. S., "Clinical Medical Effects of Head and Neck Response During Biodynamic Stress Experiments." *AGARD Conference Proceedings No. 267*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 15:1-15, 1980.

Tyburksi, J. J., Frisch, G. D., and D'Aulerio, L. A., "Low Level, Adverse Attitude Escape Using a Vertical Seeking Ejection Seat." *AGARD Conference Proceedings No. 267*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 28:1-10, 1980.

Wickens, C. D., Mountford, S. J., and Schreiner, W., *Task Dependent and Individual Differences in Dual Task Performance*, Monograph No. NBDL-M003 (NTIS No. AD A099986), Naval Biodynamics Laboratory, New Orleans, LA, October 1980.

Willems, G. C., *Some Useful Filter Forms*, Research Report No. NBDL-80R005 (NTIS No. AD A100452), Naval Biodynamics Laboratory, New Orleans, LA, June 1980.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

NAVBIODYNLAB PUBLICATIONS 1981

Anderson, W. R. and Martin, R., "Design of a Digital Filter to Eliminate High Frequency Noise from Noncontiguous Film Coordinate Data." *2nd International Symposium of Biomechanics, Cinematography, and High Speed Photography*, The International Society for Optical Engineering, San Diego, CA, Vol. 291, pp. 110-118, 1981.

Bittner, A. C., Jr., "Use of Proportion-of-Baseline Measures in Stress Research." In Gavriel Salvendy and M. J. Smith (Eds.), *Machine Pacing and Occupational Stress*, Taylor & Francis Ltd., London, pp. 177-183, 1981.

Bittner, A. C., Jr. and Carter, R. C., *Repeated Measures of Human Performance: A Bag of Research Tools*, Research Report No. NBDL-81R011 (NTIS No. AD A113954), Naval Biodynamics Laboratory, New Orleans, LA, November 1981.

Bittner, A. C., Jr., Carter, R. C., and Krause, M., *Performance Tests for Repeated Measures: Moran and Computer Batteries*, Research Report No. NBDL-81R012 (NTIS No. AD A115068), Naval Biodynamics Laboratory, New Orleans, LA, November 1981.

Bittner, A. C., Jr., Jones, M. B., Carter, R. C., Shannon, R. H., Chatfield, D. C., and Kennedy, R. S., *Statistical Issues in Performance Testing: Collected Papers*, Research Report No. NBDL-81R010 (NTIS No. AD A111086), Naval Biodynamics Laboratory, New Orleans, LA, September 1981.

Carter, E. C. and Carter, R. C., "Color and Conspicuousness." *Journal of the Optical Society of America*, Vol. 71, pp. 729-732, June 1981.

Carter, R. C., Kennedy, R. S., and Bittner, A. C., Jr., "Grammatical Reasoning: A Stable Performance Yardstick." *Human Factors*, Vol. 23, pp. 587-591, October 1981.

Damos, D. L., Kennedy, R. S., Bittner, A. C., Jr., and Harbeson, M. M., "Effects of Extended Practice on Dual-Task Tracking Performance." *Human Factors*, Vol. 23, pp. 627-631, October 1981.

Frisch, G. D., *Occupant Ejection Response Analysis of Front vs. Rear Crew Station in TF-18 Aircraft*, Research Report No. NBDL-81R004, Naval Biodynamics Laboratory, New Orleans, LA, 1981.

Frisch, G. D., *Simulation of Occupant-Crew Station Interaction During Impact*, Report No. NBDL-81R005, Naval Biodynamics Laboratory, New Orleans, LA, 1981.

Frisch, G. D., *Simulation of Emergency Egress from AV-8A and AV-8B Crew Stations*, Phase Report No. NBDL-80R002 (NADC No. 81184-60), Naval Biodynamics Laboratory, New Orleans, LA, January 1981.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1992

Frisch, G. D., "Mathematical Simulation of Adverse Attitude and High Speed Escape From Stricken Aircraft." *Sciences and Engineering Symposium*, Dayton, OH, Vol. 7, pp. 217-229, October 1981.

Guignard, J. C., Bittner, A. C., Jr., and Carter, R. C., "Methodological Investigation of Vibration Effects on Performance of Three Tasks." *Proceedings of the 25th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Santa Monica, CA, pp. 342-346, 1981.

Jones, M. B., Kennedy, R. S., and Bittner, A. C., Jr., "A Video Game for Performance Testing." *American Journal of Psychology*, Vol. 94, pp. 143-152, 1981.

Kennedy, R. S., Andrews, D. A., and Carter, R. C., "Performance Evaluation Tests for Environmental Research (PETER): A Microcomputer Game as a Memory Test." *Preprints of the Scientific Program Aerospace Medical Association 1981 Annual Scientific Meeting*, Aerospace Medical Association, Washington, DC, pp. 240-241, May 1981.

Kennedy, R. S., Bittner, A. C., Jr., and Jones, M. B., "Video-Game and Conventional Tracking." *Perceptual and Motor Skills*, Vol. 53, p. 310, 1981.

Kennedy, R. S., Bittner, A. C., Jr., Harbeson, M. M., and Jones, M. B., *Perspectives in Performance Evaluation Tests for Environmental Research: Collected Papers*, Research Report No. NBDL-80R004 (NTIS No. AD A111180), Naval Biodynamics Laboratory, New Orleans, LA, November 1981.

Kennedy, R. S., Bittner, A. C., Jr., Carter, R. C., Krause, M., Harbeson, M. M., McCafferty, D. B., Pepper, R. L., and Wiker, S. F., *Performance Evaluation Tests for Environmental Research (PETER): Collected Papers*, Research Report No. NBDL-80R008 (NTIS No. AD A111296), Naval Biodynamics Laboratory, New Orleans, LA, July 1981.

Lustick, L. S. and Seemann, M. R., "Determination of Sensitivity to Error Sources and Target Configuration on Kinematic Variables Derived from Cinematography." *2nd International Symposium of Biomechanics, Cinematography, and High Speed Photography*, The International Society for Optical Engineering, San Diego, CA, Vol. 291, pp. 170-177, 1981.

Lustick, L. S. and Williamson, H. G., "Editing of Cinematographic Data." *2nd International Symposium of Biomechanics, Cinematography, and High Speed Photography*, The International Society for Optical Engineering, San Diego, CA, Vol. 291, pp. 153-160, 1981.

Muzzy, W. H., III and Prell, A. M., "Targets for Three-Dimensional (3-D) Tracking of Human Impact Test Subjects." *2nd International Symposium of Biomechanics, Cinematography, and High Speed Photography*, The International Society for Optical Engineering, San Diego, CA, Vol. 291, pp. 106-109, 1981.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

Muzzy, W. H., III, Prell, A. M., and Shimp, P. B., "Camera and Site Calibration for Three-Dimensional (3-D) Target Acquisition." *2nd International Symposium of Biomechanics, Cinematography, and High Speed Photography*, The International Society for Optical Engineering, San Diego, CA, Vol. 291, pp. 161-169, 1981.

Patsfall, M., *Implications of Dual-Task Performance Variables for Design of Generic Workstations: Literature Review*, Research Report No. NBDL-81R014 (NTIS No. AD A114421), Naval Biodynamics Laboratory, New Orleans, LA, November 1981.

Sances, T. A., Jr., Myklebust, J. B., Cusick, J. F., Weber, R., Houterman, C., Larson, S. J., Walsh, P. R., Chilbert, M., Prieto, T., Saltzberg, B., Zyzolski, M., Thomas, D. J., and Ewing, C. L., "Experimental Studies of Brain and Neck Injury." *Proceedings of the 25th STAPP Car Crash Conference*, Society of Automotive Engineers, Warrendale, PA, pp. 149-194, 1981.

Seales, D. M., Torkelson, R. D., Shuman, R. M., Rossiter, V. S., and Spencer, J. D., "Abnormal Brainstem Auditory Evoked Potentials and Neuropathology in 'Locked-in' Syndrome." *Neurology*, Vol. 31, No. 7, pp. 893-896, July 1981.

Seemann, M. R. and Lustick, L. S., "Combination of Accelerometer and Photographically Derived Kinematic Variables Defining Three-Dimensional Rigid Body Motion." *2nd International Symposium of Biomechanics, Cinematography, and High Speed Photography*, The International Society for Optical Engineering, San Diego, CA, Vol. 291, pp. 133-140, 1981.

Sekuler R., Tynan, P. D., and Kennedy, R. S., *Source Book of Temporal Factors Affecting Information Transfer from Visual Display*, Report No. NBDL-81R007, Naval Biodynamics Laboratory, New Orleans, LA, June 1981.

Shannon, R. H. and Carter, R. C., "A Comparison of Tactical Naval Work Stations Within the Air and Sea Environments." *Preprints of the Scientific Program Aerospace Medical Association 1981 Annual Scientific Meeting*, Aerospace Medical Association, Washington, DC, pp. 238-239, May 1981.

Shannon, R. H. and Carter, R. C., *Task Analysis and the Ability Requirements of Tasks: Collected Papers*, Research Report No. NBDL-81R009 (NTIS No. AD A111181), Naval Biodynamics Laboratory, New Orleans, LA, September 1981.

Wiker, S. F., Kennedy, R. S., and Pepper, R. L., "Performance Evaluation Tests for Environmental Research (PETER): Navigational Plotting Task." *Preprints of Scientific Program Aerospace Medical Association 1981 Annual Scientific Meeting*, Aerospace Medical Association, Washington, DC, pp. 242-243, May 1981.

Willem, G. C. and Becker, E. B., "An Algorithm for Minimizing the Effect of Low Frequency Errors in Kinematic Variables Derived from Cinematography." *2nd International Symposium of Biomechanics, Cinematography, and High Speed Photography*, The International Society for Optical Engineering, San Diego, CA, Vol. 291, pp. 119-123, 1981.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1992

Willems, G. C., Muzzy, W. H., III, Anderson, W. R., and Becker, E. B., "Cinematography Data Systems at the Naval Biodynamics Laboratory." *2nd International Symposium of Biomechanics, Cinematography, and High Speed Photography*, The International Society for Optical Engineering, San Diego, CA, Vol. 291, pp. 90-96, 1981.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

NAVBIODYNLAB PUBLICATIONS 1982

Berger, M. D., *Analysis of Sensory Evoked Potentials Using Normalized Cross-Correlation Functions and Polyexponential Regression*, Report No. NBDL-82R015 (NTIS No. AD A121726), Naval Biodynamics Laboratory, New Orleans, LA, July 1982.

Bittner, A. C., Jr., "Averaged Correlations Between Parallel Measures: Reliability Estimation." *Proceedings of the 8th Psychology Symposium in the Department of Defense*, United States Air Force Academy, Colorado Springs, CO, pp. 321-327, April 1982.

Bittner, A. C., Jr., Dunlap, W. P., and Jones, M. B., "Averaged Correlations with Differentially-Stable Variables: Fewer Subjects Required for Repeated Measures." *Proceedings of the 26th Annual Meeting of the Human Factors Society*, Human Factors Society, Santa Monica, CA, pp. 349-353, October 1982.

Bittner, A. C., Jr., Guignard, J. C., Woldstad, J. C., and Carter, R. C., "Vibration Effects on Digit Symbol Coding." *Proceedings of the 8th Psychology Symposium in the Department of Defense*, United States Air Force Academy, Colorado Springs, CO, pp. 60-76, April 1982.

Bittner, A. C., Jr., Lundy, N. C., Kennedy, R. S., and Harbeson, M. M., "Performance Evaluation Tests for Environmental Research (PETER): Spoke Tasks." *Perceptual and Motor Skills*, Vol. 54, pp. 1319-1331, 1982.

Bittner, A. C., Jr., Carter, R. C., Krause, M., Kennedy, R. S., and Harbeson, M. M., "Performance Tests for Repeated Measures: Moran and Computer Batteries." *Proceedings of the 26th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Santa Monica, CA, pp. 747-751, 1982.

Carter, R. C., "A Design Tool for Color Displays." *Proceedings of the 26th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Santa Monica, CA, p. 589, 1982.

Carter, R. C., "Search Time with a Color Display: Analysis of Distribution Functions." *Human Factors*, Vol. 24, pp. 203-212, 1982.

Carter, R. C., "Visual Search with Color." *Journal of Experimental Psychology, Human Perception and Performance*, Vol. 8, pp. 127-136, 1982.

Carter, R. C. and Biersner, R. J., *U.S. Navy Enlisted Jobs: An Analysis*, Research Report No. NBDL-82R010 (NTIS No. AD A122410), Naval Biodynamics Laboratory, New Orleans, LA, September 1982.

Carter, R. C. and Bittner, A. C., Jr., *Jackknife for Variance Analysis of Multifactor Experiments*, Research Report No. NBDL-82R013 (NTIS No. AD A121760), Naval Biodynamics Laboratory, New Orleans, LA, May 1982.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1992

Carter, R. C. and Carter, E. C., "High Contrast Sets of Colors." *Applied Optics*, Vol. 21, pp. 2936-2939, 1982.

Carter, R. C. and Sbisa, H. E., *Human Performance Tests for Repeated Measurements: Alternate Forms of Eight Tests by Computer*, Research Report No. NBDL-82R003 (NTIS No. AD A115021), Naval Biodynamics Laboratory, New Orleans, LA, January 1982.

Carter, R. C., Patsfall, M., and Shannon, R. H., *A Job Analysis of the Aegis Combat Submodes*, Research Report No. NBDL-82R002 (NTIS No. AD A115030), Naval Biodynamics Laboratory, New Orleans, LA, January 1982.

Carter, R. C., Stone, D. A., and Bittner, A. C., Jr., "Repeated Measurements of Manual Dexterity: Applications and Support of the Two-Process Theory." *Ergonomics*, Vol. 25, pp. 829-838, 1982.

Frisch, G. D. and D'Aulerio, L. A., "Instrumentation Requirements for Assessing Occupant Response to Three Dimensional High Acceleration Environments." *AGARD Conference Proceedings No. 322*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 15:1-9, 1982.

Guignard, J. C. and McCauley, M. E., "Motion Sickness Incidence Induced by Complex Periodic Waveforms." *Aviation, Space, and Environmental Medicine*, Vol. 53, pp. 554-563, January 1982.

Guignard, J. C., Bittner, A. C., Jr., and Carter, R. C., "Methodological Investigation of Vibration Effects on Performance of Three Tasks." *Journal of Low Frequency Noise and Vibration*, Vol. 1, pp. 12-18, 1982.

Harbeson, M. M. and Kennedy, R. S., *Repeated Measures of Information Processing: Comparison of Four Tasks*, Research Report No. NBDL-82R014, Naval Biodynamics Laboratory, New Orleans, LA, 1982.

Harbeson, M. M., Kennedy, R. S., Krause, M., and Bittner, A. C., Jr., "Repeated Measures of Information Processing." *Proceedings of the 26th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Santa Monica, CA, pp. 818-822, October 1982.

Harbeson, M. M., Krause, M., Kennedy, R. S., and Bittner, A. C., Jr., "The Stroop as a Performance Evaluation Test for Environmental Research." *Journal of Psychology*, Vol. 111, pp. 223-233, 1982.

Jessop, M. E., Jr. and Saltzberg, B., "Head and Spine Injuries." *AGARD Conference Proceedings No. 322*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 13:1-34, 1982.

Kennedy, R. S., Bittner, A. C., Jr., Harbeson, M. M., and Jones, M. B., "Television Computer Games: A New Look in Performance Testing." *Aviation, Space, and Environmental Medicine*, Vol. 53, pp. 49-53, January 1982.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

Krause, M., "Repeated Measures on a Choice Reaction Time Task." *Proceedings of the 26th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Santa Monica, CA, pp. 359-363, 1982. Also published as Research Report No. NBDL-82R006 (NTIS No. AD A121904), Naval Biodynamics Laboratory, New Orleans, LA, August 1982.

Lustick, L. S. and Williamson, H. G., "Errors in Derived Kinematic Variables Determined from a Fixed Accelerometer Configuration." *ISA Transactions*, Vol. 20, pp. 35-47, 1982.

Lustick, L. S., Williamson, H. G., Seemann, M. R., and Bartholomew, J. M., *Problems of Measurement in Human Analog Research*, Research Report No. NBDL-82R012, Naval Biodynamics Laboratory, New Orleans, LA, May 1982.

Mackaman, S. L., Bittner, A. C., Jr., Harbeson, M. M., Kennedy, R. S., and Stone, D. A., "Performance Evaluation Tests for Environmental Research (PETER): Wonderlic Personnel Test." *Psychological Reports*, Vol. 51, pp. 635-644, 1982.

Saltzberg, B., Burton, W. D., Jr., Burch, N. R., Ewing, C. L., Thomas, D. J., Weiss, M. S., Berger, M. D., Sances, T. A., Jr., Walsh, P. R., Myklebust, J. B., Larson, S. J., and Jessop, M. E., Jr., "Evoked Potential Studies of Central Nervous System Injury Due to Impact Acceleration." *AGARD Conference Proceedings No. 322*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 16:1-11, 1982.

Sances, T. A., Jr., Myklebust, J. B., Houterman, C., Weber, R., Lepkowski, J., Cusick, J. F., Larson, S. J., Ewing, C. L., Thomas, D. J., Weiss, M. S., Berger, M. D., Jessop, M. E., Jr., and Saltzberg, B., "Head and Spine Injuries." *AGARD Conference Proceedings No. 322*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 13:1-34, 1982.

Sances, T. A., Jr., Myklebust, J. B., Kostreva, D., Cusick, J. F., Weber, R., Houterman, C., Larson, S. J., Maiman, D. J., Walsh, P. R., Chilbert, M., Unterharnscheidt, F. J., Ewing, C. L., Thomas, D. J., Seigesmund, K., Ho, K., and Saltzberg, B., "Pathophysiology of Cervical Injuries." *Proceedings of the 26th STAPP Car Crash Conference*, Society of Automotive Engineers, Warrendale, PA, pp. 41-70, 1982.

Shannon, R. H., *Biomechanical Analysis of Manual Material Handling Techniques*, Research Report No. NBDL-82R001 (NTIS No. AD A113955), Naval Biodynamics Laboratory, New Orleans, LA, February 1982.

Shannon, R. H., *Translation of Functional Tasks of a Navy Workstation to Structured Job Elements*, Research Report No. NBDL-82R007 (NTIS No. AD A119620), Naval Biodynamics Laboratory, New Orleans, LA, March 1982.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1992

Shannon, R. H., Krause, M., and Irons, R. C., *Attributes of a Simulated Flight Scenario Microcomputer Test*, Research Report No. NBDL-82R004 (NTIS No. AD A115676), Naval Biodynamics Laboratory, New Orleans, LA, January 1982. Also published as "Attribute Requirements for a Simulated Flight Scenario Microcomputer Test" in *Proceedings of the 26th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Santa Monica, CA, pp. 959-963, 1982.

Unterharnscheidt, F. J., "Neuropathology of the Rhesus Monkey Undergoing -G_x Impact Acceleration." *AGARD Conference Proceedings No. 322*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 17:1-34, 1982.

Weiss, M. S. and Berger, M. D., "Neurophysiological Effects of -X Impact Acceleration." *AGARD Conference Proceedings No. 322*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 14:1-7, 1982.

Willems, G. C., Muzzy, W. H., III, and Lustick, L. S., *Cinematographic Data Systems at the Naval Biodynamics Laboratory: Collected Papers*, Research Report No. NBDL-82R011, Naval Biodynamics Laboratory, New Orleans, LA, May 1982.

Woldstad, J. C., Bittner, A. C., Jr., and Guignard, J. C., "A Methodological Investigation of Subject Input/Output Related Error During Vibration." *Proceedings of the 26th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Santa Monica, CA, pp. 533-537, 1982.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

NAVBIODYNLAB PUBLICATIONS 1983

Berger, M. D., "Analysis of Sensory Evoked Potential Using Normalized Cross-Correlation Functions." *Medical and Biological Engineering and Computing*, Vol. 21, pp. 149-157, March 1983.

Berger, M. D., *A High-Performance Analog-to-Digital Conversion Subsystem Suitable for the Study of Evoked Potentials, With Design Considerations for the Eclipse S140™ Computer*, Research Report No. NBDL-83R001 (NTIS No. AD A130353), Naval Biodynamics Laboratory, New Orleans, LA, February 1983.

Berger, M. D. and Weiss, M. S., "Effects of Impact Acceleration on Somatosensory Evoked Potential." In C. L. Ewing, D. J. Thomas, T. A. Sances, Jr., and S. J. Larson (Eds.), *Impact Injury of the Head and Spine*, Charles C. Thomas, Springfield, IL, pp. 324-378, 1983.

Berger, M. D. and Weiss, M. S., *Effects of Impact Acceleration on Somatosensory Evoked Potentials*, Research Report No. NBDL-83R002 (NTIS No. AD A130380), Naval Biodynamics Laboratory, New Orleans, LA, April 1983.

Bittner, A. C., Jr., Shortal, J. P., III, and Harbeson, M. M., *Effects of Head Impact Acceleration on Human Performance: Overview and Preliminary Battery Identification*, Research Report No. NBDL-83R004 (NTIS No. AD A130286), Naval Biodynamics Laboratory, New Orleans, LA, May 1983.

Bittner, A. C., Jr., Guignard, J. C., Woldstad, J. C., and Carter, R. C., "Vibration Effects on Digit Symbol Coding." *Journal of Low Frequency Noise and Vibration*, Vol. 2, pp. 169-175, 1983.

Bittner, A. C., Jr., Carter, R. C., Krause, M., Kennedy, R. S., and Harbeson, M. M., "Performance Evaluation Tests for Environmental Research (PETER): Moran and Computer Batteries." *Aviation, Space, and Environmental Medicine*, Vol. 54, pp. 923-928, October 1983.

Carter, R. C. and Carter, E. C., "CIE L*u*v* Equations for Self-Luminous Display." *Color Research and Applications*, Vol. 8, pp. 252-253, 1983.

Carter, R. C. and Krause, M., *Reliability of Slope Scores for Individuals*, Research Report No. NBDL-83R003 (NTIS No. AD A130252), Naval Biodynamics Laboratory, New Orleans, LA, April 1983.

Damos, D. L., Smist, T. E., and Bittner, A. C., Jr., "Individual Differences in Multiple-Task Performance as a Function of Response Strategy." *Human Factors*, Vol. 25, pp. 215-226, April 1983.

Dunlap, W. P., Jones, M. B., and Bittner, A. C., Jr., "Averaged Correlations vs Correlated Averages." *Bulletin of the Psychonomics Society*, Vol. 21, pp. 213-216, March 1983.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1992

Ewing, C. L., "Preface to Impact Injury of the Head and Spine." In C. L. Ewing, D. J. Thomas, T. A. Sances, Jr., and S. J. Larson (Eds.), *Impact Injury of the Head and Spine*, Charles C. Thomas, Springfield, IL, 1983.

Frisch, G. D., "Simulation of Occupant-Crew Station Interaction During Impact." In C. L. Ewing, D. J. Thomas, T. A. Sances, Jr., and S. J. Larson (Eds.), *Impact Injury of the Head and Spine*, Charles C. Thomas, Springfield, IL, pp. 485-535, 1983.

Ginsburg, A. P., Bittner, A. C., Jr., Kennedy, R. S., and Harbeson, M. M., "A Methodological Investigation of Three Psychophysical Techniques for Rapid Measurement of Contrast Sensitivity." *Proceedings of the 27th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Santa Monica, CA, Vol. 1., pp. 264-268, 1983.

Guignard, J. C., Bittner, A. C., Jr., and Harbeson, M. M., *Current Research at the U.S. Naval Biodynamics Laboratory on Human Whole-Body Motion and Vibration*, Research Report No. NBDL-83R008 (NTIS No. AD A138367), Naval Biodynamics Laboratory, New Orleans, LA, July 1983.

Guignard, J. C., Bittner, A. C., Jr., and Harbeson, M. M., "Mechanisms of Whole-Body Vibration Effects on Human Performance." *Proceedings of the 27th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Norfolk, VA, p. 472, October 1983. (Abstract)

Harbeson, M. M., Bittner, A. C., Jr., Kennedy, R. S., Carter, R. C., and Krause, M., "Performance Evaluation Tests for Environmental Research (PETER): Bibliography." *Perceptual and Motor Skills*, Vol. 57, pp. 283-293, 1983.

Krause, M. and Woldstad, J. C., *Massed Practice: Does it Change the Statistical Properties of Performance Tests?* Research Report No. NBDL-83R005 (NTIS No. AD A139338), Naval Biodynamics Laboratory, New Orleans, LA, June 1983.

Muzzy, W. H., III, *Ship Motion Generator Upgrade Study*, Research Report No. NBDL-83R012 (NTIS No. AD A138368), Naval Biodynamics Laboratory, New Orleans, LA, September 1983.

Myklebust, J. B., Sances, T. A., Jr., Maiman, D. J., Pintar, F., Chilbert, M., Rauschning, W., Larson, S. J., Cusick, J. F., Ewing, C. L., and Thomas, D. J., "Experimental Spinal Trauma Studies in the Human and Monkey Cadaver." *Proceedings of the 27th STAPP Car Crash Conference*, Society of Automotive Engineers, Warrendale, PA, pp. 149-160, 1983.

Saltzberg, B., Burton, W. D., Jr., Weiss, M. S., Berger, M. D., Ewing, C. L., Thomas, D. J., Jessop, M. E., Jr., Sances, T. A., Jr., Larson, S. J., Walsh, P. R., and Myklebust, J. B., "Dynamic Tracking on Evoked Potential Changes in Studies of Central Nervous System Injury Due to Impact Acceleration." In C. L. Ewing, D. J. Thomas, T. A. Sances, Jr., and S. J. Larson (Eds.), *Impact Injury of the Head and Spine*, Charles C. Thomas, Springfield, IL, pp. 310-323, 1983.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

Seemann, M. R., *Error in CALSPAN™ 3-Dimensional Crash Vehicle Simulation Computer Program for the Case of Massless Segments*, Research Report No. NBDL-83R013 (NTIS No. AD A141783), Naval Biodynamics Laboratory, New Orleans, LA, December 1983.

Smith, M. G., Krause, M., Kennedy, R. S., Bittner, A. C., Jr., and Harbeson, M. M., "Performance Testing with Microprocessors: Mechanization Is Not Implementation." *Proceedings of the 27th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Santa Monica, CA, Vol. 2, pp. 674-678, 1983.

Thomas, D. J. and Jessop, M. E., Jr., "Experimental Head and Neck Injury." In C. L. Ewing, D. J. Thomas, T. A. Sances, Jr., and S. J. Larson (Eds.), *Impact Injury of the Head and Spine*, Charles C. Thomas, Springfield, IL, pp. 177-217, 1983.

Thomas, D. J., Guignard, J. C., and Willems, G. C., "The Problem of Defining Criteria for Protection of Crewmen from Low-Frequency Ship Motion Effects." *24th Defense Research Group Seminar*, Toronto, Canada, pp. 9:1&52, May 1983.

Unterharnscheidt, F. J., "Neuropathology of Rhesus Monkeys Subjected to -G_x Impact Acceleration." In C. L. Ewing, D. J. Thomas, T. A. Sances, Jr., and S. J. Larson (Eds.), *Impact Injury of the Head and Spine*, Charles C. Thomas, Springfield, IL, pp. 94-176, 1983.

Unterharnscheidt, F. J., "Traumatic Alterations in the Rhesus Monkey Undergoing -G_x Impact Acceleration." *Proceedings of the 6th Meeting of the Japanese Society of Neurotraumatology*, Nihon Shinkei Gaisho Kenkyukai, Tokyo, Japan, Vol. 6, pp. 151-167, 1983.

Walsh, P. R. and Jessop, M. E., Jr., "The Evoked Potential in Sled Impact Acceleration: Methodologic and Neurosurgical Considerations." In C. L. Ewing, D. J. Thomas, T. A. Sances, Jr., and S. J. Larson (Eds.), *Impact Injury of the Head and Spine*, Charles C. Thomas, Springfield, IL, pp. 302-309, 1983.

Weiss, M. S. and Berger, M. D., "Neurophysiological Effects of -X Impact Acceleration." *Aviation, Space, and Environmental Medicine*, Vol. 54, pp. 1023-1027, November 1983.

Wiker, S. F., Kennedy, R. S., and Pepper, R. L., "Development of Performance Evaluation Tests for Environmental Research (PETER): Navigational Plotting." *Aviation, Space, and Environmental Medicine*, Vol. 54, pp. 144-149, February 1983.

Willems, G. C., *A Detailed Evaluation of the Endevco Model 7302™ Angular Accelerometer*, Research Report No. NBDL-83R009 (NTIS No. AD A134882), Naval Biodynamics Laboratory, New Orleans, LA, August 1983.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1992

NAVBIODYNLAB PUBLICATIONS 1984

Anderson, W. R., Willems, G. C., and Guignard, J. C., "Analysis of Head Motion During Simulated, Rough Water Operation of a 2200 Ton Surface Effect Ship." *AGARD Conference Proceedings No. 372*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 38:1-14, 1984.

Bittner, A. C., Jr. and Moroney, W. F., "Estimation of Comprehensive Anthropometric Data from Limited Information." *Proceedings of the 28th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Santa Monica, CA, Vol. 1, pp. 176-178, 1984.

Bittner, A. C., Jr., Carter, R. C., Kennedy, R. S., Harbeson, M. M., and Krause, M., "Performance Evaluation Tests for Environmental Research (PETER): The Good, Bad, and Ugly." *Proceedings of the 28th Annual Meeting of the Human Factors Society*, Human Factors Society, Inc., Santa Monica, CA, Vol. 1, pp. 11-15, 1984.

Bittner, A. C., Jr., Carter, R. C., Kennedy, R. S., Harbeson, M. M., and Krause, M., *Performance Evaluation Tests for Environmental Research (PETER): Evaluation of 112 Tasks*, Research Report No. NBDL-84R006 (NTIS No. AD A152317), Naval Biodynamics Laboratory, New Orleans, LA, September 1984.

Bowman, B. M., Schneider, L. W., Lustick, L. S., Anderson, W. R., and Thomas, D. J., "Simulation Analysis of Head and Neck Dynamic Response." *Proceedings of the 28th STAPP Car Crash Conference*, Society of Automotive Engineers, Warrendale, PA, pp. 173-206, 1984.

Carter, R. C., "Time Series Models of Human Factors Dynamic." *Human Factors*, Vol. 26, pp. 83-95, 1984.

Damos, D. L., Bittner, A. C., Jr., Kennedy, R. S., Harbeson, M. M., and Krause, M., "Performance Evaluation Tests for Environmental Research (PETER): Critical Tracking Test." *Perceptual and Motor Skills*, Vol. 58, pp. 567-573, 1984.

Francis, D. A., *General Plot Subroutine Package for the Hewlett-Packard 5451C Fourier Analyzer™*, Research Report No. NBDL-84R008 (NTIS No. AD A157127), Naval Biodynamics Laboratory, New Orleans, LA, December 1984.

Frank, L. H., Kennedy, R. S., Kellogg, R. S., Bittner, A. C., Jr., McCauley, M. E., and Root, R. W., "Simulator Sickness: Sensorimotor Disturbances in Flight Simulators." *Proceedings of the 1984 IMAGE Conference III*, Phoenix, AZ, pp. 417-426, June 1984.

Frisch, G. D., "Manikin Response Requirements for Safety Equipment Testing." *Proceedings of the 37th Annual Conference on Engineering in Medicine and Biology*, The Alliance for Engineering in Medicine and Biology, Bethesda, MD, p. 293, 1984.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

Guignard, J. C. and Thomas, D. J., *Toward Standard Biodynamic Coordinate Systems*, Research Report No. NBDL-84R005, Naval Biodynamics Laboratory, New Orleans, LA, 1984.

Jones, M. B., Dunlap, W. P., and Bilodeau, I. McD., "Factors Appearing Late in Practice." *Organizational Behavior and Human Performance*, Vol. 33, pp. 153-173, 1984.

Kennedy, R. S., Frank, L. H., McCauley, M. E., Bittner, A. C., Jr., Root, R. W., and Binks, T. A., "Simulator Sickness: Reaction to a Transformed Perceptual World, VI. Preliminary Site Surveys." *AGARD Conference Proceedings No. 372*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 34:1-11, 1984.

Kilgore, P. D. and Gottbrath, J. H., *Photodigitizing Procedures*, Research Report No. NBDL-84R002 (NTIS No. AD A143589), Naval Biodynamics Laboratory, New Orleans, LA, February 1984.

Lambert, J. J., *A Method of Photo Data Reduction, with Design Considerations for the NOVA 800™ and UNIVAC 1100/83™ Computers*, Research Report No. NBDL-84R001 (NTIS No. AD A144537), Naval Biodynamics Laboratory, New Orleans, LA, January 1984.

Muzzy, W. H., III, Lustick, L. S., Anderson, W. R., and Willems, G. C., "Human vs Manikin Head and Neck Response to +G_x Acceleration." *Proceedings of the 37th Annual Conference on Engineering in Medicine and Biology*, The Alliance for Engineering in Medicine and Biology, Bethesda, MD, p. 294, 1984.

Sances, T. A., Jr., Myklebust, J. B., Maiman, D. J., Larson, S. J., Cusick, J. F., and Jodat, R. W., "The Biomechanics of Spinal Injuries." *CRC Critical Review of Bioengineering*, pp. 11:1-76, 1984.

Seemann, M. R., Lustick, L. S., and Frisch, G. D., "Mechanisms of Control of Head and Neck Dynamic Response." *Proceedings of the 28th STAPP Car Crash Conference*, Society of Automotive Engineers, Warrendale, PA, pp. 207-222, 1984.

Tabler, R. E., *Nicolet Med-804™ Programs in the Naval Biodynamics Laboratory Evoked Potential Series*, Research Report No. NBDL-84R007 (NTIS No. AD A147105), Naval Biodynamics Laboratory, New Orleans, LA, August 1984.

Thomas, D. J. and Jessop, M. E., Jr., "Experimental Head and Neck Injuries from Inertial Forces." *Proceedings of the 37th Annual Conference on Engineering in Medicine and Biology*, The Alliance for Engineering in Medicine and Biology, Bethesda, MD, p. 291, 1984.

Weiss, M. S., *Kolmogorov-Smirnov Goodness-of-Fit Test: Corrected for use with "EEG-Like" Data*, Research Report No. NBDL-84R003 (NTIS No. AD A144711), Naval Biodynamics Laboratory, New Orleans, LA, April 1984.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1992

NAVBIODYNLAB PUBLICATIONS 1985

Bittner, A. C., Jr. and Guignard, J. C., "Engineering Principles for Minimization of Adverse Ship Motion Effects: Theory and Practice." *The Naval Engineers Journal*, Vol. 97, No. 4, pp. 205-213, May 1985.

Bittner, A. C., Jr., Smith, M. G., Kennedy, R. S., Staley, C. F., and Harbeson, M. M., "Automated Portable Test (APT) System: Overview and Prospect." *Behavior Research Methods, Instruments, and Computers*, Vol. 17, pp. 217-221, 1985.

Carter, R. C. and Woldstad, J. C., "Repeated Measurements of Spatial Ability with the Manikin Test: Change and Stability of Skill Across Time and Task." *Human Factors*, Vol. 27, pp. 209-219, 1985.

Dunlap, W. P., Silver, N. C., Hunter, R. E., and Bittner, A. C., Jr., "Averaged Cross-Correlations: A Method for Validity Assessment in Small Sample." In R. Eberts and C. G. Eberts (Eds.), *Trends in Ergonomics/Human Factors*, Elsevier Science Publishers, Amsterdam, the Netherlands, Vol. 2, pp. 13-21, 1985.

Irons, R. C. and Rose, P. V., "Naval Biodynamics Laboratory Computerized Cognitive Testing." *Neurobehavioral Toxicology and Teratology*, Vol. 7, pp. 395-397, 1985.

Matson, D. L., "Impact Acceleration and the Effects of Heart Rate of Short-Latency Somatosensory Evoked Potentials." *Psychophysiology*, Vol. 22, p. 603, October 1985.

Muzzy, W. H., III and Becker, E. B., "Shearless T-1 Instrumentation Mount." *Proceedings of the 13th Annual International Workshop on Human Subjects for Biomechanical Research*, Arlington, VA, pp. 75-77, 1985.

Pepper, R. L., Kennedy, R. S., Bittner, A. C., Jr., Wiker, S. F., and Harbeson, M. M., "Performance Evaluation Tests for Environmental Research (PETER): Code Substitution Test." *Perceptual and Motor Skills*, Vol. 61, pp. 735-745, 1985.

Pollack, J. G., *Motion Comparison Between a SWATH and a Monohull*, Research Report No. NBDL-85R001 (NTIS No. AD A164882), Naval Biodynamics Laboratory, New Orleans, LA, February 1985.

Seales, D. M., Bittner, A. C., Jr., Weiss, M. S., and Morrill, S. N., "Short-Latency Somatosensory Evoked Potentials During Experimentally Induced Biodynamic Stress in Humans," Research Report No. NBDL-85R002 (NTIS No. AD A164947), Naval Biodynamics Laboratory, New Orleans, LA, December 1985.

1984 and 1985 Command History, Naval Biodynamics Laboratory, New Orleans, LA, 1985.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

NAVBIODYNLAB PUBLICATIONS 1986

Biersner, R. J. and Davis, P. O., "Needed: Chemical Warfare Defense Doctrine." *U.S. Naval Institute Proceedings*, Vol. 112, pp. 116-120, 1986.

Biersner, R. J. and von Gierke, H. E., *DOD Biomechanical Research*, Research Report No. NBDL-86R005 (NTIS No. AD A168199), Naval Biodynamics Laboratory, New Orleans, LA, May 1986.

Bittner, A. C., Jr. and Damos, D. L., *Demonstration of a Statistical Method for Isolating Timesharing Components*, Research Report No. NBDL-86R001 (NTIS No. AD A165417), Naval Biodynamics Laboratory, New Orleans, LA, January 1986.

Bittner, A. C., Jr. and Guignard, J. C., *Motion Sickness Evaluations in an At-Sea Environment: Seakeeping Trials of a USCG Cutter (WMEC 901)*, Research Report N NBDL-86R002, Naval Biodynamics Laboratory, New Orleans, LA, 1986.

Bittner, A. C., Jr., Carter, R. C., Kennedy, R. S., Harbeson, M. M., and Krause, M., "Performance Evaluation Tests for Environmental Research (PETER): Evaluation of 114 Measures." *Perceptual and Motor Skills*, Vol. 63, pp. 683-708, 1986.

Carter, R. C., Krause, M., and Harbeson, M. M., "Beware of the Reliability of Slope Scores for Individuals." *Human Factors*, Vol. 28, pp. 673-683, 1986.

Cullen, J. K., Jr., Rampp, R. D., May, J. G., and Dobie, T. G., "Measures of Auditory Evoked Potentials During Optokinetic Stimulation." *Aviation, Space, and Environmental Medicine*, Vol. 58, pp. 129-132, February 1986.

Dunlap, W. P., Silver, N. C., and Bittner, A. C., Jr., "Estimating Reliability with Small Samples: Increased Precision with Averaged Correlations." *Human Factors*, Vol. 28, pp. 685-690, 1986.

Matson, D. L., "Evoked Potential Indices for Predicting Motion Sickness Susceptibility." *Psychophysiology*, Vol. 23, pp. 450-451, 1986.

Matson, D. L., Impact Injury and Evoked Potentials: *I-Somatosensory Evoked Potentials in Humans*, Research Report No. NBDL-86R003 (NTIS No. AD A175836), Naval Biodynamics Laboratory, New Orleans, LA, January 1986.

Muzzy, W. H., III, Seemann, M. R., Willems, G. C., Lustick, L. S., and Bittner, A. C., Jr., "The Effects of Mass Distribution Parameters on Head/Neck Dynamic Response." *Proceedings of the 30th STAPP Car Crash Conference*, Society of Automotive Engineers, Warrendale, PA, pp. 167-183, 1986.

Seemann, M. R., Muzzy, W. H., III, and Lustick, L. S., "Comparison of Hybrid III Head and Neck Dynamic Response." *Proceedings of the 30th STAPP Car Crash Conference*, Society of Automotive Engineers, Warrendale, PA, pp. 291-311, 1986.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1992

Thomley, K. E., Kennedy, R. S., and Bittner, A. G., Jr., "Development of Postural Equilibrium Tests for Examining Simulator Aftereffect." *Perceptual and Motor Skills*, Vol. 63, pp. 555-564, 1986.

Trautman, E., Pollack, J. G., and Gilreath, P., *Task and Environmental Considerations for Laboratory Simulation of the Dead Reckoning Trainer Crew Station*, Research Report No. NPRDC-F50-TN86-2, Navy Personnel Research and Development Center, San Diego, CA, February 1986.

Trautman, E., Pollack, J. G., and Webb, S. C., *Task and Environmental Considerations for Ship Motion Simulation in the FFG 7*, HFOSL Technical Note No. 71-86-13, Human Factors and Organizational Systems Laboratory, Navy Personnel Research and Development Center, San Diego, CA, June 1986. (DISTRIBUTION TO AUTHORIZED U. S. GOVERNMENT AGENCIES ONLY).

Unterharnscheidt, F. J., "Pathological and Neuropathological Findings in Rhesus Monkeys Subjected to -G_x and +G_x Indirect Impact Acceleration." In T. A. Sances, Jr., et al., (Eds.), *Mechanisms of Head and Spine Trauma*, Goshen, NY, pp. 565-653, 1986.

Wamsley, B. W., Bittner, A. C., Jr., Gilbert, N. S., and Lustick, L. S., *Dynamic Variable Temporary Injury Correlation for Human and Neck Impact Experiments*, Research Report No. NBDL-86R007, Naval Biodynamics Laboratory, New Orleans, LA, 1986.

Weiss, M. S., "Testing Correlated 'EEG-Like' Data for Normality Using a Modified Kolmogorov-Smirnov Statistic." *IEEE Transactions on Biomedical Engineering*, New York, NY, Vol. 33, pp. 1114-1120, 1986.

Weiss, M. S. and Lustick, L. S., *Guidelines for Safe Human Experimental Exposure to Impact Acceleration*, Research Report No. NBDL-86R006 (NTIS No. AD A169347), Naval Biodynamics Laboratory, New Orleans, LA, April 1986.

Wilson, K. P. and Pollack, J. G., "Effect of Vertical Heave Motion on Cognitive Performance." *Proceedings of the 10th Psychology Symposium in the Department of Defense*, United States Air Force Academy, Colorado Springs, CO, pp. 344-348, 1986.

Wilson, K. P., Pollack, J. G., and Wallick, M. T., "The Effects of Ship Motion on Human Performance: An Update." *ANSE Symposium — 1986: Destroyer, Cruiser and Frigate Technology*, American Society of Naval Engineers, Alexandria, VA, pp. 347-395, 1986.

1986 *Command History*, Naval Biodynamics Laboratory, New Orleans, LA, 1986.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

NAVBIODYNLAB PUBLICATIONS 1987

Biersner, R. J., "Emotional and Physiological Effects of Nitrous Oxide and Hyperbaric Air Narcosis." *Aviation, Space, and Environmental Medicine*, Vol. 58, pp. 34-38, 1987.

Carter, R. C. and Biersner, R. J., "Job Requirements Derived from P. A. Q. Validated Using Medical Aptitude Test Scores." *Journal of Occupational Psychology*, Vol. 60, pp. 11-321, 1987.

Cullen, K. C., Rampp, R. D., May, J. G., and Dobie, T. G., "Measures of Auditory Evoked Potentials During Optokinetic Stimulation." *Aviation, Space, and Environmental Medicine*, Vol. 58, pp. A129-A132, 1987.

Dobie, T. G., May, J. G., Fisher, W. D., Elder, S. T., and Kubitz, K. A., "A Comparison of Two Methods of Training Resistance to Visually-Induced Motion Sickness." *Aviation, Space, and Environmental Medicine*, Vol. 58, pp. A34-A41, 1987.

Jones, M. B., Dunlap, W. P., and Bilodeau, I. McD., "Comparison of Video Game and Conventional Test Performance." *Stimulation and Games*, Vol. 4, pp. 435-446, 1987.

Matson, D. L., "Evoked Potential Analysis of Impact Acceleration Experiments." *AGARD Conference Proceedings No. 432*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 28:1&13, 1987.

Muzzy, W. H., III, "Summary of Current Research In Head Injury Mechanisms at the Naval Biodynamics Laboratory." *Symposium on Head Injury Mechanisms*, American Association for Automotive Medicine, Des Plaines, IL, pp. 96-99, 1987.

Weiss, M. S., "Scope of Current Biomechanics Research." *Injury Biomechanics*, Society of Automotive Engineers, Warrendale, PA, pp. 31-35, 1987.

Bibliography of NBDL Publications, Technical Report No. 87R001 (NTIS No. AD A180126), Naval Biodynamics Laboratory, New Orleans, LA, January 1987.

NAVBIODYNLAB PUBLICATIONS 1988

Anthropometry and Mass Distribution for Human Analogues, Vol. 1: Military Male Aviators, Research Report No. NBDL-87R003, Naval Biodynamics Laboratory, New Orleans, LA, March 1988.

Dobie, T. G., May, J. G., Fisher, W. D., Elder, S. T., and Kubitz, K. A., "A Comparison of Two Methods of Training Resistance to Visually-Induced Motion Sickness." *Aviation, Space, and Environmental Medicine*, Vol. 58, pp. A31-A41, 1988.

Gilbert, N. S., Mawn, S. V., Guccione, S. J., Jr., and Bolin, F. E., *Fabrication and Application of a Standardized T1/T2 Mount*, Research Report No. NBDL-88R001 (NTIS No. AD A208328), Naval Biodynamics Laboratory, New Orleans, LA, December 1988.

Guignard, J. C., "Aspects of Consensus Standards Development in Biodynamics." In F. Aghazadeh (Ed.), *Trends in Ergonomics/Human Factors V*, Elsevier Science Publishers, Amsterdam, the Netherlands, pp. 495-503, 1988.

Matson, D. L. and Weiss, M. S., "Evoked Potential Analysis of Impact Acceleration Experiments." *AGARD Conference Proceedings No. 432*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 28:1-13, 1988.

Muzzy, W. H., III, Gilbert, N. S., and Grunsten, R. C., "Reconfigured Lap Restraint Offers Tolerance Increase in +G_x Acceleration." *Proceedings of the 26th Annual Symposium of the SAFE Association*, SAFE Association, Newhall, CA, pp. 305-307, December 1988.

Muzzy, W. H., III, Willems, G. C., and Knouse, D. R., "Portable Instrumentation and Data Acquisition Package for Measurement of Manikin Response to Ship Shock." *Proceedings of Live Fire Test/Crew Casualty Assessment Workshop*, Groton, CT, October 1988.

Watkins, T. A. and Guccione, S. J., Jr., "A Statistical Approach to Human Kinematics Response to Impact." *16th Annual International Workshop on Human Subjects for Biomechanical Research*, Society of Automotive Engineers, Warrendale, PA, pp. 209-225, 1988.

Weiss, M. S. and Lustick, L. S., "Safe Human Experimental Exposure to Impact." *16th Annual International Workshop on Human Subjects for Biomechanical Research*, U.S. Department of Transportation, National Highway Traffic Safety Administration, Washington, DC, pp. 135-164, 1988.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

NAVBIODYNLAB PUBLICATIONS 1989

Dobie, T. G., "Teaching the Right Stuff — The Heart of the Matter." *Aviation, Space, and Environmental Medicine*, Vol. 60, pp. 195-196, February 1989.

Dobie, T. G. and May, J. G., "Parametric Studies of Factors Influencing Visually-Induced Motion." Aviation, Space, and Environmental Medicine, Vol. 60, p. 491, May 1989. (Abstract)

Dobie, T. G., May, J. G., Dunlap, W. P., and Anderson, M. E., "Reduction of Visually-Induced Motion Sickness Elicited by Change in Illumination Wavelength." *Aviation, Space, and Environmental Medicine*, Vol. 60, pp. 749-754, August 1989.

Dobie, T. G., May, J. G., Fisher, W. D., and Bologna, M. S., "An Evaluation of Two Main Elements of Cognitive-Behavioral Therapy as a Method of Training Resistance to Visually-Induced Motion Sickness." *Aviation, Space, and Environmental Medicine*, Vol. 60, pp. 307-314, April 1989.

Grunsten, R. C., Gilbert, N. S., and Mawn, S. V., "The Mechanical Effects of Impact Acceleration on the Unconstrained Human Head and Neck Complex." *Contemporary Orthopaedics*, Vol. 18, No. 2, pp. 199-202, February 1989.

Hirsch, A. E., Shaibani, S. J., Nguyen, T. T., Willems, G. C., Muzzy, W. H., III, and Knouse, D. R., *Response of Seated and Standing Manikin During Shock Trials on U.S.S. MOBILE BAY (CG53) and U.S.S. ROOSEVELT (CVN71)*, Research Report No. NBDL-89R005 (NTIS No. AD A212586), Naval Biodynamics Laboratory, New Orleans, LA, May 1989.

Matson, D. L., *Impact Injury and Evoked Potentials: II - Somatosensory Evoked Potentials in Rhesus Monkeys*, Research Report No. NBDL-89R002, Naval Biodynamics Laboratory, New Orleans, LA, 1989.

Matson, D. L., "Somatosensory Evoked Potentials During +Z Impact Acceleration." Aviation, Space, and Environmental Medicine, Vol. 60, p. 487, May 1989. (Abstract)

Muzzy, W. H., III and Prell, A. M., *Photo Reference Target Array Scheme*, Research Report No. NBDL-89R004 (NTIS No. AD A210963), Naval Biodynamics Laboratory, New Orleans, LA, May 1989.

Watkins, T. A. and Guccione, S. J., Jr., "A Consistent Statistical Model for Human Kinematic Response to Impact Acceleration." *Proceedings of the 17th Annual International Workshop on Human Subjects for Biomechanical Research*, Society of Automotive Engineers, Warrendale, PA, pp. 117-132, 1989.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1992

Weiss, M. S., "Testing EEG Data for Statistical Normality." *Proceeding of the 11th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, The Institute of Electrical and Electronics Engineers, Inc., New York, NY, Vol. 11, No. 2, pp. 704-705, 1989.

Weiss, M. S. and Guccione, S. J., Jr., "A Kinematic/Dynamic Model for Prediction of Neck Injury during Impact Acceleration." *Aerospace Medical Panel Symposium*, Advisory Group for Aerospace Research and Development Conference Proceedings, CP-471, pp. 11:1-5, April 1989.

Weiss, M. S., Guccione, S. J., Jr., and Watkins, T. A., "Statistical Modelling of Human Kinematic Response to Impact Acceleration." Aviation, Space, and Environmental Medicine, Vol. 60, p. 488, May 1989. (Abstract)

Weiss, M. S., Matson, D. L., and Mawn, S. V., *Guidelines for Safe Human Exposure to Impact Acceleration: Update A*, Research Report No. NBDL-89R003 (NTIS AD A215287), Naval Biodynamics Laboratory, New Orleans, LA., June 1989.

Willems, G. C., *Closing the Loop — or Can the Ship Motion Simulator Simulate Ship Motion?* Research Report No. NBDL-89R007 (NTIS No. AD A222355), Naval Biodynamics Laboratory, New Orleans, LA, November 1989.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

NAVBIODYNLAB PUBLICATIONS 1990

Cullen, J. K., Rampp, R. D., May, J. G., and Dobie, T. G., *Measures of Auditory Evoked Potentials During Optokinetic Stimulation*, Research Report No. NBDL-87R005 (NTIS No. AD A232722), Naval Biodynamics Laboratory, New Orleans, LA, October 1990.

Dobie, T. G. and May, J. G., "Generalization of Tolerance to Motion Environments." *Aviation, Space, and Environmental Medicine*, Vol. 61, pp. 707-711, August 1990. Also published as Research Report No. NBDL-90R010 (NTIS No. AD A232766), Naval Biodynamics Laboratory, New Orleans, LA, October 1990.

Dobie, T. G. and May, J. G., "Motion Sickness Prevention: A Course of Instruction in Cognitive-Behavioral Counseling." *Proceedings of the 12th Psychology Symposium in the Department of Defense*, United States Air Force Academy, Colorado Springs, CO, pp. 87-91, April 1990.

Dobie, T. G., May, J. G., Dunlap, W. P., and Anderson, M. E., *Reduction of Visually-Induced Motion Sickness Elicited by Changes in Illumination Wavelength*, Research Report No. NBDL-89R009 (NTIS No. AD A232860), Naval Biodynamics Laboratory, New Orleans, LA, October 1990.

Dobie, T. G., May, J. G., Fisher, W. D., and Bologna, N. B., *An Evaluation of Cognitive-Behavior Therapy for Training Resistance to Visually-Induced Motion Sickness*, Research Report No. NBDL-89R008 (NTIS No. AD A232807), Naval Biodynamics Laboratory, New Orleans, LA, October 1990.

Dobie, T. G., May, J. G., Gutierrez, C. A., and Heller, S. S., "The Transfer of Adaptation Between Actual and Simulated Rotary Stimulation." *Aviation, Space, and Environmental Medicine*, Vol. 61, pp. 1085-1091, December 1990.

Dobie, T. G., May, J. G., Gutierrez, C. A., and Scott, S. M., "The Transfer of Adaptation Between Actual and Simulated Rotary Stimulation." Aviation, Space, and Environmental Medicine, Vol. 61, p. 506, May 1990. (Abstract)

Dobie, T. G., May, J. G., Fisher, W. D., Elder, S. T., and Kubitz, K. A., *A Comparison of Two Methods of Training Resistance to Visually-Induced Motion Sickness*, Research Report No. NBDL-87R004 (NTIS No. AD A231806), Naval Biodynamics Laboratory, New Orleans, LA, October 1990.

Guccione, S. J., Jr., *A Statistical Analysis of -X Rhesus Head Kinematics*, Research Report No. NBDL-89R006 (NTIS No. AD A233977), Naval Biodynamics Laboratory, New Orleans, LA, October 1990.

Guignard, J. C. and McCauley, M. E., "The Accelerative Stimulus for Motion Sickness." In George H. Crampton (Ed.), *Motion and Space Sickness*, CRC Press, Inc., Boca Raton, FL, pp. 123-152, 1990.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1992

Kaufman, B., Sahakian, A. V., and Myklebust, J. B., "Analysis of the SEP Using the Hilbert Transform." *Proceedings of the 12th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, The Institute of Electrical and Electronics Engineers, Inc., New York, NY, Vol. 12, No. 2, pp. 887-888, 1990.

Lotz, M. L., *Physiology Data Acquisition System Description*, Technical Report No. NBDL-90R004 (NTIS No. AD A231088), Naval Biodynamics Laboratory, New Orleans, LA, October 1990.

Matson, D. L., *Human Short-Latency Somatosensory Evoked Potentials in Impact Acceleration Research: Equipment, Procedures and Techniques*, Technical Report No. NBDL-89R001 (NTIS No. AD A232732), Naval Biodynamics Laboratory, New Orleans, LA, October 1990.

Morrison, T. R., Dobie, T. G., Willems, G. C., Webb, S. C., and Endler, J. L., "Effect of Roll Stabilization on Human Performance." Aviation, Space, and Environmental Medicine, Vol. 61, p. 477, May 1990. (Abstract)

Riemer, T. E., Weiss, M. S., and Losh, M. W., "Discrete Clipping Detection by Use of a Signal Matched Exponentially Weighted Differentiator." *Proceedings of the 12th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, The Institute of Electrical and Electronics Engineers, Inc., New York, NY, Vol. 12, pp. 245-248, 1990.

Webb, S. C., "ASVAB and Demographic Profiles of Enlisted Navy Males in a Biodynamics Research Program: A Comparison of Program Completers and Noncompleters." *Proceedings of the 12th Psychology Symposium in the Department of Defense*, United States Air Force Academy, Colorado Springs, CO, p. 368, April 1990. (Abstract)

Weiss, M. S., Guccione, S. J., Jr., and Watkins, T. A., "A Kinematic/Dynamic Model for Prediction of Neck Injury During Impact Acceleration." *AGARD Conference Proceedings No. 471*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 11:1-6, 1990.

Bibliography of Scientific Publications of the Naval Biodynamics Laboratory: 1980-1990, Technical Report No. NBDL-90R005 (NTIS No. AD A229030), Naval Biodynamics Laboratory, New Orleans, LA, September 1990.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

NAVBIODYNLAB PUBLICATIONS 1991

Dobie, T. G., *Teaching the Right Stuff—The Heart of the Matter*, Technical Report No. NBDL-90R017 (NTIS No. AD A232826), Naval Biodynamics Laboratory, New Orleans, LA, January 1991.

Dobie, T. G., May, J. G., Gutierrez, C., and Heller, S. S., *The Transfer of Adaptation between Actual and Simulated Rotary Stimulation*, Research Report No. NBDL-90R015 (NTIS No. AD A234781), Naval Biodynamics Laboratory, New Orleans, LA, April 1991.

Francis, D., *X-Ray Anthropometry Digitization Program for the Hewlett-Packard 9000/835 Computer*, Technical Report No. NBDL-90R003, Naval Biodynamics Laboratory, New Orleans, LA, May 1991.

Francis, D., *X-Ray Anthropometry Transformation Program for the Hewlett-Packard 9000/835 Computer*, Technical Report No. NBDL-90R002, Naval Biodynamics Laboratory, New Orleans, LA, May 1991.

Guccione, S. J., Jr., Watkins, T. A., Weiss, M.S., and Call, D. W., "A Kinematic Model for Predicting the Effects of Helmet Mounted Systems." *Aviation, Space, and Environmental Medicine*, Vol. 62, p. 477, May 1991. (Abstract)

Holcombe, F. D. and Webb, S. C., *Human Factors Assessment of USCG 47-Ft Motor Lifeboat*, Technical Report No. NBDL-91R003 (NTIS No. AD A245835), Naval Biodynamics Laboratory, New Orleans, LA, October 1991.

Losh, M. W., "High Performance Continuous and Simultaneous Acquisition and Disk Storage of Event Related Data." *Proceedings of the 13th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, The Institute of Electrical and Electronics Engineering, Inc., New York, NY, Vol. 13, No. 1, pp. 413-414, 1991.

Matson, D. L., "Naval Biodynamics Laboratory Research in Human Response to Impact Acceleration." *Shock and Vibration Technology Review*, Vol. 1, pp. 3-12, November 1991.

Morrison, T. R., Webb, S. C., and Wildzunas, R. M., *The Effects of Fatigue on 41-Ft Utility Boat Crewmembers*, Research Report No. NBDL-90R012 (NTIS No. AD A238973), Naval Biodynamics Laboratory, New Orleans, LA, May 1991.

Morrison, T. R., Webb, S. C., Swensen, E. E., and Wildzunas, R. M., "Fatigue Effects on Performance of U.S. Coast Guard Boat Crew." *Aviation, Space, and Environmental Medicine*, Vol. 62, p. 451, May 1991. (Abstract)

Morrison, T. R., Dobie, T. G., Willems, G. C., Webb, S. C., and Endler, J. L., *Ship Roll Stabilization and Human Performance*, Research Report No. NBDL-90R007 (NTIS No. AD A232721), Naval Biodynamics Laboratory, New Orleans, LA, January 1991.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1992

Starr, J. B., Webb, S. C., Day, H. R., Frey, R., "Aptitude Measurement in U.S. Subcultures." *International Journal of Intercultural Relations*, Vol. 15, pp. 149-161, 1991.

Watkins, T. A., Weiss, M. S., Call, D. W., and Guccione, S. J., Jr., "A Kinematic Model for Predicting the Effects of Helmet-mounted Systems." *AGARD Conference Proceedings No. 517*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 7:1-7, 1991.

Webb, S. C., "500 Years of Hispanic Heritage 1492-1992: A Cultural Mosaic." *Hispanic Heritage Month 1991*, pp. 1-18, April 1991.

Willems, G. C. and Knouse, D. R., "A Simplified Digital Filtering Technique." *Personal Engineering and Instrumentation News*, November 1991.

Willems, G. C. and Knouse, D. R., "A Detailed Evaluation of the ATA Angular Motion Sensor in Realistic Simulated Crash Environments." *Proceedings of the 35th STAPP Car Crash Conference*, Society of Automotive Engineers, San Diego, CA, pp. 303-334, 1991.

Willems, G. C., Muzzy, W. H., III, Knouse, D. R., and Gilreath, F., *Dynamic Response of the Hybrid III Dummy to +Gz Simulated Ship Shock-Cushioned vs Hard Seats*, Research Report No. NBDL-91R002, Naval Biodynamics Laboratory, New Orleans, LA, November 1991.

1989 and 1990 Command History, (NTIS No. AD A247185), Naval Biodynamics Laboratory, New Orleans, LA, July 1991.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

NAVBIODYNLAB PUBLICATIONS 1992

Alem, N. M., Shanahan, D. F., Barson, J. V., and Muzzy, W. H., "The Effectiveness of Airbags in Reducing the Severity of Head Injury from Gunsight Strikes in Attack Helicopters." *NATO-AGARD Conference Proceedings*, pp. 532:1-9, September, 1992.

Bibliography of Scientific Publications of the Naval Biodynamics Laboratory 1980-1991
Report No. NBDL-92R003, Naval Biodynamics Laboratory, New Orleans, LA, June 1992. (DTIC No. AD A255952)

Bishop, B. A., Francis, D. A., and Jupiter, G. L., *EZFLOW Data Reduction and Analysis System Operating Procedure for the Hewlett Packard 9000/835 System*, Technical Report No. NBDL-92R002, Naval Biodynamics Laboratory, New Orleans, LA, July 1992.

Gluck, G. S. and Mawn, S. V., "The Klippel-Feil Syndrome: Implications for Naval Service." *Military Medicine*, Vol. 157, pp. 318-322, June 1992.

Holcombe, F. D. "HFE at the Naval Biodynamics Laboratory," *The Aerospace Experimental Psychologist Bulletin* Volume 1, No. 2, pp. 4-7, June 92.

Liberati, D., Brandazza, P., Casagrande, L., Cerini, A., and Kaufman, B., "Detection of Transient Single-Sweep Somatosensory Evoked Potential Changes via Principal Components Analysis of the Autoregressive-with-Exogenous-Input Parameters." *Proceedings of the 14th Annual Conference of the IEEE Engineering in Medicine and Biology Society*, pp. 2454-2455, 1992

Mawn, S. V., Lambert, J. J., and Catyb, J. L. "The Relationship Between Head and Neck Anthropometry and Kinematic Response During Impact Acceleration." *Aviation, Space and Environmental Medicine*, Vol. 63, pp. 32-36, January 1992.

Rog, A., "Time Delay Estimation of Noisy Signals using Spatial Amplitude Distribution Analysis," *presented to the 124th Annual Meeting of the Acoustical Society of America*, 31 October 1992.

Weiss, M. S., Willem, G. C., Guccione, S. J., Mugnier, C. J., and Pittman, M. E., "A New Instrumentation System for Measuring the Dynamic Response of the Human Head/Neck During Impact Acceleration." *AGARD Conference Proceedings*, No. 532, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 21:1-6, 1992.

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188
<p>Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Service, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204 Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.</p>			
1. AGENCY USE ONLY (Leave Blank)	2. REPORT DATE July 1993	3. REPORT TYPE AND DATES COVERED	
4. TITLE AND SUBTITLE Bibliography of Scientific Publications of the Naval Biodynamics Laboratory 1980-1992		5. FUNDING NUMBERS	
6. AUTHOR(S)			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Biodynamics Laboratory P.O. Box 29407 New Orleans, LA 70189-0407		8. PERFORMING ORGANIZATION REPORT NUMBER NBDL-93R001	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Naval Medical Research and Development Command National Naval Medical Center Building 1, Tower 12 Bethesda, MD 20889-5044		10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES			
12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.		12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) This report lists all research reports, special reports, monographs, technical memoranda, joint reports, research information bulletin, journal articles, and conference proceedings published by the Naval Biodynamics Laboratory between January 1980 and December 1992.			
14. SUBJECT TERMS Bibliography; impact acceleration; ship motion; motion sickness; evoked potentials; human factors.			15. NUMBER OF PAGES 33
			16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT